REPORT RESUMES

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AN EVALUATION OF THE EFFECTS OF A SUMMER HEAD START PROGRAM.

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THIS PROJECT WAS CONDUCTED TO INVESTIGATE THE EFFECT UPON DISADVANTAGED CHILDREN OF A HEAD START PROGRAM AND THE AFTER-EFFECT OF THAT PROGRAM ON THE SUBJECTS' SUBSEQUENT PERFORMANCE IN KINDERGARTEN AND FIRST GRADE. MEASURES OF APTITUDE AND ACHIEVEMENT WERE TAKEN DURING THE FIRST TWO WEEKS AND LAST TWO WEEKS OF THE EIGHT WEEK HEAD START PROGRAM, DURING THE THIRD MONTH OF THE SUBJECTS' FIRST YEAR OF FORMAL SCHOOL, AT THE COMPLETION OF THAT FIRST YEAR, AND DURING THE FIRST SIX MONTHS OF THEIR SECOND YEAR OF SCHOOL. RESULTS OF TESTING DURING THE HEAD START PROGRAM SHOWED SUBSTANTIAL GAIN IN ALL PERFORMANCE AREAS BETWEEN THE TWO TESTING PERIODS. NO CONTROL GROUP WAS USED. THEREFORE, NO EXPERIMENTALLY BASED CONCLUSION COULD BE MADE AS TO WHETHER THE GAIN WAS DUE TO THE HEAD START EXPERIENCE OR TO A SIMPLE PASSAGE OF TIME AND RESULTING GENERAL DEVELOPMENT. MEASURES OF PERFORMANCE AFTER THE SUBJECTS ENTERED SCHOOL SHOWED NO SIGNIFICANT GAINS BY HEAD START PUPILS OVER NON-HEAD START PUPILS. THE ONLY REAL DISTINCTION WAS IN SCHOOL ATTENDANCE, IN WHICH HEAD START PUPILS DID BETTER. THE FACT THAT THE EXPERIMENTAL SUBJECTS SHOWED HIGH GAINS DURING THE HEAD START PROGRAM BUT FAILED TO EVIDENCE SUCH GAINS IN THE FORMAL SCHOOL SITUATION WAS EXPLAINED IN PART AS DUE TO THE FACT THAT THE CHILDREN WERE EMOTIONALLY UNREADY AT THE BEGINNING OF THE HEAD START PROGRAM TO BE TESTED BY RELATIVE STRANGERS IN UNFAMILIAR SURROUNDINGS. IT IS HYPOTHESIZED, THEREFORE, THAT THE CHILDREN SCORED UNCHARACTERISTICALLY LOW. (WD)

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An Evaluation of the Effects
Of a Summer Head Start Program

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INTRODUCTION

The problems encountered by families in poverty circumstances are perhaps worse today than they were yesterday. Inflamed feelings which will tolerate little delay in achieving equity and justice in our society have had an undeniable effect of producing class and racial distrust and disorder, and prospects for permanent erradication of this poverty condition are tenuous.

It is an established fact that ignorance, failure and alienation from society are transmitted from generation to generation. We are aware that at least 20% of the population of this country is suffering from substandard economic and educational conditions. Despair, apathy, hatred, lack of achievement, and a defensive pride in ignorance are handed down from parent to child in a cycle that might perpetuate itself indefinitely.

Our public schools today stand in the position of attempting to transmit a rapidly growing and vastly complex culture from one generation to the next. Successful transmission of information, skills, values, attitudes, and standards of behavior is essentially a process of communication. In educating the child from a culture of poverty, the process of relationship across generations (child-adult) is complicated by an abyss of language and experiential differences.

In a painfully significant percentage of cases, the public school system has not been able to carry out its role of preparing the child to be a productive and self-fulfilled citizen.

The cycle of cultural and economic deprivation persists even though the children are exposed to formal schooling for many years. It is evident that a child coming from such a background usually does not have many of the basic language and social skills that his more fortunate peers possess. It has been generally observed that many underprivileged children, when compared with middle class children, have not had the type of stimulation of words and early sharing of ideas which seem so necessary to prepare them for the challenges of learning. By the middle of the primary grades, many of these children seem to have developed mental sets in which the school is regarded as a place for compulsory failure, pain, and frustration.

With the advent in 1965 of a new federal agency, the Office of Economic Opportunity, came promise of a sweeping change in the American educational structure. In an attempt to meet the special needs of children of poverty, a nationwide push for pre-school enrollment was designed to find and remediate the problem. Quickly placed before the American public, the idea of such an approach, one of many in the declared "War on Poverty", attracted enthusiastic support from most and great hope from many.

But would the translation of idea into program provide the impetus to changing actual life styles and school adjustment patterns of the children for whom the program was developed? And would such changes produced by a Head Start experience be maintained over that period of time when divergence in performance and attitudes normally appear along class lines and separate the successful from the unsuccessful school child? We felt that it was an important enough task to join researchers all over the country to help identify the effects of a Head Start experience upon disadvantaged children.

The purpose of this research, then, was to evaluate the effectiveness of a specific summer Head Start experience, and to measure the impact of this experience on the child's kindergarten and first grade adjustment.

METHOD

Sample. Sixty-one children were enrolled into the Staten Island Mental Health Society summer Head Start program beginning July 5, 1965. Children were selected upon identification of specific problem families and problem areas by the guidance staff of the school serving a high density poverty area on Staten Island. These families were known to the guidance staff through older siblings in attendance at the school. Enrollment into the program was made on the basis of low family income, residence in poor housing facilities, and information about family disruption. All screening data were gathered by trained representatives of SIMHS in door-to-door interviews. From a pool of over 100 eligible children, those in greatest jeopardy of later school adjustment failure were enrolled.

Of the 61 children, 33 were boys and 28 girls; 36 were Negro, 25 were Caucasian or Puerto Rican. The average age of the children was 4 years 11 months, ranging from 4-1 to 6-2. The average number of children in each family was 3.7, ranging from 1 to 10.

Design of the Study.

Phase I. The first phase of the study ran from July 5, 1965 through August 31, 1965, the period of the summer Head Start program. Initial data on the children were collected during the first two weeks of the program. Final data were collected during the last two weeks of the program. Performance measures were obtained by testing each child 2 or 3 times[1] both at the beginning and at the end of the program. This testing was done by one of two trained psychologists. Teacher and independent observer ratings of the children were also made during these two-week periods. The specific measuring instruments are described below:

I. Child Performance Measures

  A. Cognitive (intellectual functioning)skills in verbal and nonverbal areas

    1. Ammons Full Scale Picture Vocabulary Test, measuring word recognition and yielding a mental age score.
    2. The Goodenough scoring of the Draw-a-Person Test, measuring nonverbal intellectual level and also yielding a mental age score.

  B. Perceptual-Motor Functioning Skills

    1. Bender-Gestalt Test of Visual-Motor Performance, measuring eye-hand coordination and level of perceptual skill which was scored to yield a perceptual age score (cf. Appendix B.1).

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[1] Depending on factors of fatigue, fearfulness, and/or resistiveness.

C. School-specific readiness skills

1. Metropolitan Readiness Test, yielding scores reflecting the number of correct responses in rudimentary reading and number skills. Five areas were assessed. *Word Meaning* required the child to associate an orally presented word with the correct visual representation of that word. *Sentences* required the child to associate an orally presented sentence with the correct visual representation. *Information* required the child to associate an orally presented description of a function with a picture of an object most appropriate to that function. *Matching* required the child to recognize which of several pictures is equivalent to a standard. *Number Skills* required the child to demonstrate achievement in number vocabulary, counting, ordinal numbers, recognition of written numbers, interpreting number symbols, meaning of fractional parts, telling time, and use of numbers in simple problems.

2. The O.E.O.-developed Preschool Inventory (based on research by Bettye Caldwell) yielded scores that were broken down by SIMHS staff to provide information on preschool readiness in eight areas: personal orientation, body image, number concepts, general information, visual discrimination and

association, relationships, following directions, and comprehension of social roles. The breakdown was done by a rational analysis of all items in the scale by senior Head Start teachers and mental health clinical staff. (Cf. Appendix B.2 for a copy of the Preschool Inventory and scoring manual).

II. Ratings of Child Adjustment

A. Operation Head Start Behavior Inventory. A 50-item rating scale describing the child's behavior was completed for each child by his Head Start teacher (cf. Appendix B.3). The data were analyzed item-by-item to investigate behavior change; a factor analysis of the scale was also performed.

B. Classroom Observation Rating Scales. Three medical students and a school psychology practicum student were hired for the summer and trained in the use of a 10-item rating scale (Appendix B.4). Each was assigned to one of the four classes and on alternate days rated half of the children in the class on each scale, giving each child a rating on each scale which represented the child's average behavior during a 1-hour observation period. The raters were trained during the first few days of the program by a senior clinical psychologist; the criterion reached was that all ratings were within one scale score of each other after simultaneous observation and independent ratings. Scores used were the means of the first five ratings on each item during the first two-week period and, similarly, the mean of the last five ratings during the last two-week period.

III. Maternal Attitudes

A. Attitudes Toward Education. Based on previous research (Crandall, et al. 1964; Kerlinger & Kaya, 1959; Mobilization for Youth, 1962), 64 items judged relevant for the measurement of educational attitudes of parents of preschool children were written or adapted. Home interviews with the mothers of 55 of the children were conducted by one of two trained research assistants.

Phase II. The second phase of the investigation was a study of the child's adjustment as reported by his teacher during the third month of formal public school. Of the 61 children enrolled in the summer Head Start program, 22 entered kindergarten and 5 entered the first grade; the remaining 34 children were either too young for school enrollment or moved out of the area of study. One hundred and twenty-seven, or all, of the children enrolled in the same classes as the Head Start graduates served as control subjects.

I. Child Performance Measures

(none obtained during this phase)

II. Ratings of Child Adjustment

A. Assessment of Language Skills of 3-6 year old Children. An instrument developed by the

Bureau of Educational Research of New York City Board of Education was given routinely as an Inventory of Oral Communication for Children in the More Effective Schools Program (the school which the children were attending was a MES). The child's expressive ability was rated in four areas: Language Structure, Speech Production, Naming, and Linguistic Skills; receptive language/ability was measured in two areas: auditory discrimination and listening comprehension (Appendix B.5).

Phase III. In the third phase of the study final report card data were gathered after the children had completed one year of formal schooling. Because only 5 of the 27 children in the study were in the first grade, only the grades from the 22 Head Start graduates who completed kindergarten were analyzed. A control group was selected to match the Head Start sample on male/female ratio, and socioeconomic status (as judged by teachers and a guidance counselor).

I. Child Performance Measures

(Inferred from report card grades; see below)

II. Ratings of Child Adjustment

A. Final Report Card Grades, June 1966. Report card grades, on a 4-point scale (excellent, good, fair, unsatisfactory), were available for the following areas: Social Behavior, Work and Study Habits, Oral Expression, and Health Education. In addition, frequency of absences were analyzed.

Phase IV. In the final phase of the study performance measures and ratings were taken during the first six months of the child's second year of school (first grade). This phase ended in January 1967. The subjects included in this phase of the study were those included in Phase III.

I. Child Performance Measures

A. New York State Readiness Examination. Scores on this standard reading achievement scale, administered routinely to all first grade students by their classroom teachers, were available in terms of first grade percentile placement.

B. Gates-McKillop Primary Reading Test, also administered routinely, made available a grade placement score for vocabulary.

II. Ratings of Child Adjustment

A. Mid-Year Report Card Grades, January 1967. Report Card grades were available for the following areas: Arithmetic, Social Studies, Handwriting Skills, Social Behavior, Work and Study Habits, and Oral Expression. Frequency of absences was also analyzed.

RESULTS

Phase I

Initial and Final Child Performance Measures. Initial measures of the children's performance were gathered during the first two weeks of the eight-week program; final performance measures were gathered during the final two weeks of the summer program. With this design, some gains in performance were expected due to the fact that the children were growing and experiencing during the six-week interim. As summarized in Table A.1 (Appendix A), the children showed significant improvement on all 16 of the performance measures. In terms of specific functions, the average gain in mental age was almost 13 months on the Ammons and 6 months on the Goodenough DAP. This suggests significant gains in language intelligence, both verbal and nonverbal. On the Bender-Gestalt reproductions there was an increase in perceptual age of about two months, reflecting visual-motor gains consistent with what might be expected during a two-month program; therefore, while the growth is statistically significant, it cannot be meaningfully related to program instruction. Significant gains were recorded on the four reading subtests of the Metropolitan Readiness Test, suggesting better readiness skills for the group. A similar significant improvement in performance was obtained on the Numbers subtest of the Metropolitan, again suggesting a level of readiness for Head Start children which was higher in August than in July.

Because no scoring system was available for the Preschool Inventory in July 1965, the Head Start staff developed a rational set of scales from the 140 items; this scoring key is presented along with a copy of the Preschool Inventory in Appendix B.2. As may be seen in Table A.1, significant improvement was observed in each of the eight cognitive areas tested: personal orientation, body image, number concepts, general information, visual discrimination, relationships, following directions, and comprehension of social roles. These results are consistent with the findings reported above for the Metropolitan Readiness Test and suggest that, on the basis of tested readiness skills, the children were better prepared for school at the conclusion of the Head Start program by virtue of their greater command and utilization of a wide range of concepts.

Initial and Final Ratings of Child Adjustment. The interest here was in assessing the child's adaptation, in terms of behavioral responses in a group situation similar to, but not identical with, that which would be experienced in the Fall in the public school setting. The task was approached from two directions. First, teachers rated each child in their class on the 50-item Operation Head Start Behavior Inventory, a scale containing items reflecting both positive and negative adjustment; e.g., "1. Is usually carefree; rarely becomes frightened or apprehensive" and

"3. Is easily distracted by things going on around him." In the second approach, trained observers sat in each classroom daily for one hour during the first two weeks and during the last two weeks of the eight-week program and rated each child on ten scales considered to describe essential elements of school adjustment (i.e., the Classroom Observation Ratings Scales, Appendix B.4) Because these two instruments were newly developed, it seemed important to study their structure and meaningfulness. To carry this out, factor analytic techniques were applied.

The 50 items of the Operation Head Start Behavior Inventory were subjected to a centroid factor analysis and rotated to varimax criterion; as may be seen in Table A.2, the first four factors accounted for 83% of the variance accounted for by the significant factors. The remaining five significant factors accounted for little of the remaining variance and were not considered further. As may be seen in Table A.3, Factor I was characterized by items which reflected ability to explore, welcome novelty, show imaginativeness and creativity, and to trust one's own ability (at one end) and timidity, lack of assurance, constriction, and inhibition (at the other). Factor II represented tendencies toward being sympathetic, considerate, even tempered, and compliant toward adults (at one pole) and disrespectful for the rights of others, aggressive in response to frustration, quarrelsome, and emotionally overresponsive to usual class problems (at the other extreme). Factor III represented an eagerness to talk to and socialize with adults, and curiosity as reflected in asking many questions for information (at one end) and reluctance to talk to adults, speaking only when urged, and generally keeping aloof from adults (at the other). The fourth Factor was characterized by ability to sustain activity without need for adult attention or approval, generally carefree behavior, lack of apprehensiveness, and desirability as a playmate (at one pole), and by tendencies for getting unduly upset by mistakes or own poor performance, easy distractibility, and irritability over interruptions (at the other pole). For convenience, Factor I will be described as Novelty-Seeking/Constriction, Factor II as Cooperative/Quarrelsome, Factor III as Sociable/Withdrawn, and Factor IV as Stability/Irritability.

The Classroom Observation Rating Scales were subjected to a principal axis factor analysis and rotation to varimax criterion. The loadings of the ten rotated scales on the two significant factors are reported in Table A.4. Factor I included the following scales: Cooperation with Adults, Aggressive Reactions, Ability to Postpone Gratification, Restraint of Motor Activity, and Type of (fine vs. gross muscle) Muscle Activity. For convenience, this Factor is named General Adaptive. The second Factor included, for our purposes, only the following three scales: Activity vs. Passivity of Speech, Verbal Skills, and Quality of Speech. The two remaining scales which loaded on this Factor, Peer Relationships, and Independence, were not included because of relatively high loadings on Factor I (.43 and .35, respectively). This second Factor was named Language Skills. Factor scores were arrived at by summing the five scales (equal weighting) for Factor I and the three (equal weighting) for Factor II (cf. Schweiker, 1966).

Differences between the initial and final summer Head Start teacher ratings on the Behavior Inventory are summarized in Table A.1 for the four Factors described above. The 45 children included in this phase of the study showed significant improvement along the dimension of Factor I (Novelty-Seeking/Constriction), Factor II (Cooperative/Quarrelsome), and Factor IV (Irritability/Stability). In comparing initial and final Head Start ratings on the 18 items with primary loadings on Factor I, the children were rated as significantly improved on 10 of the items; the remaining items showed no significant change. Of the 12 items with primary loadings of Factor II, 8 of them clearly showed significant improvement when they were considered individually; the remaining 4 showed no significant improvement. There was no significant improvement on any of the 5 items with primary loadings on Factor III. Of the 4 items with primary loading of Factor IV, 1 significant improvement was obtained on one.

Initial and final scores on the two Factors of the Classroom Observation Rating Scale administered during the summer by independent observers indicated significant gains for the Head Start children. That is, there was improvement in General Adaptation (Factor I) and in Language Skills (Factor II). When the eight scales were examined individually, seven reflected statistically significant improvement. Greatest gains were reflected in the Language Skills factor, where marked improvement was demonstrated in Verbal Skills, Activity vs. Passivity of Speech, and Quality of Speech.

Maternal Attitudes Toward Education and Their Relationship to Head Start Performance. Eleven of the 64 educational attitude items in the pilot instrument were open-ended. Three judges working independently scored these items into predefined response categories. However, because of unsatisfactorily low inter-rater reliabilities, responses to these items were not analyzed. Of the remaining 53 items, the 20 with the most nearly even response distributions were selected for a principal axis factor analysis. These items, and the distribution of mothers' responses to them, are reported in Table A.5. The factor analysis yielded four statistically significant factors, accounting for 78% of the total variance. The communalities and loadings after varimax rotation are reported in Table A.6. Analysis of the attitude items loading .40 and above on the four rotated factors did not readily disclose any basis for naming the factors. The value of the factor analysis, then, was in the statistical reduction of the number of variables to be analyzed.

With regard to the relationship between maternal attitudes and the children's Head Start performance, Table A.7 indicated a possible relationship between final achievement performance and the first attitude factor. It was anticipated that the best Head Start performance levels would occur where the mother was supportive of the school and held good school performance in high esteem, and where her attitudes were similar to those of middle class parents (and teachers). However, the direction of the correlations indicated that children who did well at the end of the program had parents who were somewhat critical of the school system, in that they felt they held higher standards than did the schools; i.e., the schools were neglecting the 3 Rs, that they don't pay enough attention to smart and to slow children, etc. Since the overall number of statistically significant correlations was low and might be attributable to chance differences, these correlations are merely suggestive of hypotheses for future testing.

An analysis of the frequency distributions of the 53 individual items revealed that the mothers, as a group, responded in a generally positive, socially desirable direction similar to those responses expected of middle class parents. As a group, the Head Start mothers reported having gotten along well with their teachers when they went to school. They reported having gotten as much education as they would have liked, and indicated that education is more important today than when they attended school. They felt that education is important for getting ahead, and that the things one learns in school will be useful in later life. They felt that schools could pay more attention to low-socioeconomic status children, and indicated that sex, race, religion, and socioeconomic status are of little importance in determining the child's chances for success.

The mothers felt that teachers should start taking the child's ability into consideration at an early age, that children vary in their performance, and while teachers should be given proper guidance, they should be free to teach what they wish. The mothers agreed with items indicating that learning is the accumulation of knowledge, and that while learning to solve problems is important, so are the learning of proper attitudes, socialization, morality, and emotional-social development.

The group felt that the schools are crowded, are doing a good job, and also are paying sufficient attention to both slow and bright children. They believed that teachers are interested in their children, and that they are doing as good a job in their neighborhood as in others. They perceived children as being somewhat lazy and unmotivated, feeling that children need supervision and discipline rather than freedom. Conversely, they felt that teachers should be more strict and have more authority.

Also, the Head Start mothers were interested in having their children do well. They wanted good grades and college educations for their children. They felt that children should attend school regularly, that homework is good for them, that they should help their children with homework. They believed that their children have a good chance of succeeding in school and also that their children had been as well prepared for school as the next child.

Phase II

Assessment of Language Skills. Background characteristics of the Head Start sample (N=27) were compared with those of the non Head Start experience, control group (N=127). The demographic features which were compared with age, sex, and race of child, school year, number of children in the family, the birth order of the child, and the predominant language used by the parents in the home. The results of these analyses are summarized in Table A.8. These results indicated that the two groups had essentially the same characteristics, except for age and school grade. Because a significantly larger proportion of the Head Start children who were entering the public school were going into kindergarten, the mean age and grade level were lower.

Since the Assessment of Language Skills scale is associated with chronological maturity, it was expected that the Head Start children, being younger, would have poorer scores on teacher ratings in this area.

The comparisons between the teacher ratings of the Head Start and the non Head Start children are summarized in Table A.9. Of the 35 items on the Scale, 11 of them reflected significantly higher teacher ratings of language ability for the children with Head Start experience. Significant differences between the two groups were obtained in the areas of Speech Production (speaks audibly, pronounces familiar words correctly, enunciates correctly), Naming (uses names of very familiar objects, of familiar teachers, uses personal pronouns when referring to himself), Auditory Discrimination (correctly identifies sound effects without looking, repeats a single rhythmic pattern), Language Structure (does not use baby talk or make up words, uses complete sentences), and Listening Comprehension (follows directions).

Phase III

Ratings of Child Adjustment and Performance. In order to control for the disparity in age and grade level noted above, follow-up data at the conclusion of one year of schooling were obtained only on children who had entered kindergarten in September 1965. Although 22 of the 27 Head Start graduates had entered kindergarten, by June 1966 only 16 (72%) were completing kindergarten at the cooperating public school. (Thus, of the original 61 summer Head Start children, 27 (44%) entered the cooperating school; of the 22 (36%) who had entered kindergarten, only 16 (26%) of the original sample were in attendance at the end of the year.)

The guidance counselor and teachers were asked to judge the socioeconomic status, lower or middle, of the families of all the children in kindergarten. Criteria for low SES membership were: family on welfare/unemployed, manual labor/unskilled job/domestic, below 6th grade education for parents, severe physical crowding in the home, residence in a poverty district, and limited educational experiences for the children at home. Criteria for middle SES membership were: steady employment, white collar/skilled or semi-skilled employment, at least high school education for parents, adequate room in the home, residence in other than a poverty district, and adequate educational experiences for children at home. These criteria result in 6 of the 16 Head Start graduates being rated as of lower-class background, 10 of middle class background. (It should be noted that middle class, as defined here, would most likely be defined by observers as low-middle, or, possibly, high-lower class.) The Head Start graduates were compared with those kindergarten classmates who were most similar to them in age, sex, race, language at home, and size of family. This resulted in a control group of 30 children, 9 of whom were judged to be from lower-class environments, 21 from middle-class environments. As indicated in Table A.10, there were no significant differences among the groups in terms of sex, race, age, or number of children in the family.

Two-by-two analyses of variance (Table A.11) were used to test for differences in four kindergarten final report card grades and in total absences for the year. The results indicated that Head Start graduates were rated lower in Social Behavior than were non Head Start graduates. Children judged to be from lower-class backgrounds, irrespective of preschool experience, were rated to be poorer in Oral Expression than were children of middle-class background. The data also revealed a significant interaction for absences. Within the lower-class sample only, children with Head Start experience attended school more frequently than did children without Head Start experience; there was no such difference for children judged to be of middle-class background. There were no significant differences among the groups in either Work and Study Habits, or Health Education.

Phase IV

Child Performance Measures. In this final phase the period September 1966 through January 1967 was covered, reflecting adjustment 1 1/2 years after the Head Start experience. The same sample was used as in Phase III above.

Results of first grade performance are summarized in Table A.12. The analysis of variance indicated that children of lower-class background placed markedly poorer in percentile ratings than did children of middle-class background (17th percentile, as compared with the 39th percentile). There were no significant differences among groups on the Gates Reading Test.

Ratings of Child Adjustment and Performance: Mid-Year Report Card Grades. Six report card areas were examined: Arithmetic, Social Studies, Handwriting Skills, Social Behavior, Work and Study Habits, and Oral Expression (Table A.12). In four of these areas (Arithmetic, Handwriting, Social Behavior, and Work and Study Habits), children of lower-class background were graded significantly lower. The significant interaction effect for Social Studies indicated that the Head Start experience was associated with higher grades for the lower-class children, but with lower grades for the middle-class children. There were no significant differences among the groups with regard to grades in Oral Expression. In terms of days absent, middle-class children had significantly better attendance than lower-class children; also, similar to the kindergarten finding, children with Head Start experience had better attendance through the first half of the first grade than did children who had not attended Head Start.

DISCUSSION

In the summer of 1965 the Staten Island Mental Health Society participated in the first national Head Start program. Because of the need for immediate implementation of Operation Head Start, the program was initiated before adequate and effective guidelines could be established, and before appropriate staff selection and training procedure could be effected to produce a coordinated program. In addition, because the initial experience was of only eight weeks duration, a question which must be asked and answered is how generalizable are the results and evaluations of these 8-wk. programs to programs of longer duration. It was with these general limitations that the present evaluation was carried out.

The first specific difficulty which was encountered in the evaluation stemmed from the rush to enroll children, so that they could have eight weeks of Head Start experience. This reflected a commitment to service and the mandate to the urgency of meeting the poverty problem. Time and pressure for service permitting, we would have preferred to have had a large pool of eligible children in order to randomly assign some children to Head Start with the remainder assigned to the untreated, ongoing, neighborhood process.

Our data indicated that during the course of the eight-week program, significant improvement was shown by the Head Start children in almost every area explored, despite the fact that selection was biased toward dealing with children from the most severely disrupted families in this area. Despite this improvement over a broad front, the lack of a control group makes any clear interpretation of the finding impossible. On the one hand, the consistency and direction of the findings are impressive. On the other hand, this improvement (a) may have resulted from the passage of time (which, in our experience, is unlikely), and/or (b) may, for some measures, have been the result of observer bias.

Let us assume that the improved scores were indicative of real improvement. What underlying changes did this observed improvement reflect? Was it possible in the course of two months to achieve an average mental age gain of approximately 13 months? Our belief in this regard is that the initial performance of the children was contaminated by their suspicion and distrust of their teachers and test administrators. This contamination was reflected behaviorally in their frequent unwillingness to verbalize, to concentrate, to sit still, and to relax. By the end of the summer these response tendencies seemed to be replaced by experimental reaching out, warming up, and the development of a sense of tentative trust. While the study did not take into direct account the state of emotional readiness of the children in the program, there is support from the behavioral ratings that there was a progression toward decreased constriction, increased cooperation and sociability, and decreased irritability. The implication here is that services developed to identify and deal with culturally disadvantaged children (in particular) must be cautious in interpreting quantitative findings because the storehouse of information possessed by the children may be largely inaccessible initially.

Our work in the area of relating maternal education attitudes with children's performance, with special focus on culturally disadvantaged families, is admittedly a first step in an area where little prior research has been reported. The fact that Factor I of the parent attitude instrument was related to final measures of the children's performance on school-type tasks suggests the value of further research to identify which children are most likely to benefit from preschool programming (e.g., Head Start), on the basis of reinforcement systems present in the home.

The initial follow-up occurred three months after the children were first enrolled in public school. It was not possible to obtain these ratings any earlier because of administrative considerations and the time needed by teachers to become familiar with the children. Despite the fact that the Head Start graduates were younger (and probably more disadvantaged because of the selection procedure), the data indicated that these children had better language skills than did the non Head Start group. Again, we believe that it was the improvement in emotional readiness which allowed the Head Start children to perform better in this area, rather than an increase in their linguistic skills _per se_. This was suggested by improvement in items reflecting greater activity in speech and movement toward adult objects as sources of information and verification. Insofar as the Head Start program can produce a growth in emotional readiness (i.e., trust in the environment, confidence in self, and identification with the goals of adults), it seems that it serves its major purpose. It appears to us that compensatory preschool programs for disadvantaged children should avoid being early cognitive training programs (academic skill training), until the prerequisite emotional foundation for learning has been carefully and thoroughly provided for each child. While there is a good deal of overlap between emotional readiness and cognitive development programs, it is in their focus on relationships (toward persons or toward tasks) and toward the developmental sequence of abilities that the two programs diverge.

The follow up of children's performance in kindergarten and first grade resulted in a dissipation of gains. This finding is consistent with other reported Head Start research (Alpern, 1966; Morrisett, 1966; Wolff & Stein, 1966). The observed dissipation in gains in school performance may be due to at least two causes: (a) the

Head Start children may drop to the level of the non Head Start children (i.e., gains relative to the control group are lost), or (b) after initial educational exposure in the public school, the non Head Start disadvantaged children show the same phenomenon of rapid initial growth, thus reducing the relative distance between the two groups. This does not contradict the observations that, despite early absolute gains by lower class children, these children diverge early in level of performance from that of middle class children, and that this divergence between the performance of lower class and middle class children increases over time. It is as if early school experience energizes all children and produces early rapid growth, but the failure to consistently reinforce and support the emotional needs of lower class children reduces their rate of cognitive growth. A common finding in our educational system is that patterns of failure are associated with manifestations of distrust, fear that one's energy output will result in failure, negativism, and apathy with regard to school tasks. In order to promote school success it is our belief that children must be receptive to what is taught rather than being preoccupied with perceptions of the teacher as a punitive, rejecting, and overdemanding person. With the population of children that Head Start is intended to reach, a population characterized by negative perceptions of adults, the educational process should start with an attack on these negative perceptions; such an attack must be sustained over a sufficiently long period of time if success in the form of good school performance is to be longlasting.

Finally, we would like to suggest a research design for evaluating the effectiveness of Head Start experience. The design requires the formation of at least three types of public school classes, varying in the density of Head Start graduates in each class. The first type of class would consist only of Head Start graduates. The second type would contain a mixture of Head Start and non Head Start graduates. The third type of class would contain no Head Start graduates. Preferably, the subjects would have been placed into a common pool and some randomly assigned to the Head Start program. It would be necdssary to replicate this design at several centers in order to reduce bias due to such factors as teacher effectiveness.

SUMMARY

Sixty-one children were enrolled in a summer Head Start program. Tests of cognitive, perceptual-motor, school readiness, and behavioral adjustment revealed significant initial gains in all areas tested. Teacher ratings of language skills indicated initial superiority of Head Start graduates when compared with their classmates. Final kindergarten report card grades showed no advantage of Head Start children over their peers. By the middle of the first grades, the results indicated that, irrespective of Head Start experience, children identified as being of lower class background were less successful in their school subjects than those described as being middle class; this finding was also obtained on the New York State Readiness Examination. Only in greater frequency of attendance at school did previous Head Start experience have a continuing, positive effect. Limitations in the experimental design were discussed and a design for future research to assess Head Start impact was offered. The results were discussed within a framework of an emotional readiness - educational model.

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APPENDIX A

Summary of Data Analyses

A.1 Summary of t-tests for Differences Between Initial and Final Performance During the Summer Head Start Program

A.2 Summary of Centroid Factor Analysis of the Operation Head Start Behavior Inventory

A.3 Communalities and Loadings After Varimax Rotation of the 50-Item Operation Head Start Behavior Inventory

A.4 Factor Loadings After Varimax Rotation of the 10-Item Behavior Observation Scale

A.5 Frequency Distribution (in Per Cent) of Responses of Head Start Mothers to Selected Items About Education

A.6 Communalities and Loadings After Varimax Rotation of 20 Selected Attitude Variables

A.7 Correlations Between Maternal Educational Attitudes And Measures of the Child's Adjustment During Head Start

A.8 Summary of Background Data on Children With and Without Head Start Experience In Kindergarten

A.9 Summary of t-tests for Differences On the Assessment of Language Skills Scale Between Children With and Without Head Start Experience

A.10 Summary of Analyses of Variance For Differences in Background Characteristics For Children With and Without Head Start Experience, By Ratings of SES

A.11 Summary of Analyses of Variance For Differences in Kindergarten Report Card Data For Children With and Without Head Start Experience, By Ratings of SES

A.12 Summary of Analyses of Variance For Differences in First Grade Performance Data For Children With and Without Head Start Experience, By Ratings of SES

TABLE A.1

Summary of t-tests For Differences Between Initial and Final Performance During the Summer Head Start Program

Measure	Mean (Delta)	Standard Error	N	t	p
Ammons MA	12.87	1.69	54	7.60	<.001
Goodenough DAP MA	5.56	1.29	55	4.30	<.001
Bender Gestalt	2.27	0.44	56	5.15	<.001
Metropolitan Readiness					
Word Meaning	2.20	0.40	46	5.46	<.001
Sentences	1.49	0.47	45	3.18	<.01
Information	1.80	0.46	44	3.91	<.001
Matching	1.41	0.51	44	2.77	<.01
Numbers	2.05	0.43	43	4.82	<.001
Preschool Inventory					
Personal Orientation	2.06	0.30	47	6.81	<.001
Body Image	1.46	0.29	48	4.99	<.001
Number Concepts	2.48	0.43	48	5.74	<.001
General Information	3.18	0.64	45	4.96	<.001
Visual Discrimination	4.36	0.71	44	6.13	<.001
Relationships	2.24	0.41	45	5.47	<.001
Following Directions	2.98	0.69	44	4.32	<.001
Comprehension of Social Roles	0.69	0.28	45	2.43	<.02
Operation Head Start Behavior Inventory					
Factor I	2.19	1.05	45	2.09	<.05
Factor II	2.30	0.88	45	2.61	<.02
Factor III	0.31	0.39	45	0.91	NS
Factor IV	0.61	0.28	45	2.18	<.05
Classroom Observations					
Factor I (1,3,4,6,7)	12.53	3.28	61	3.82	<.001
Factor II (8,9,10)	10.78	2.04	60	5.30	<.001

TABLE A.2

Summary of Centroid Factor Analysis Of the Operation Head Start Behavior Inventory

Factor	Root	% Contribution to Variance	Cumulative Variance
1	19.63	50.78	50.78
2	7.38	19.10	69.89
3	2.72	7.04	76.93
4	2.36	6.12	83.04
5	1.47	3.81	86.85
6	1.52	3.92	90.77
7	1.33	3.43	94.20
8	1.09	2.81	97.02
9	1.15	2.98	100.00
TOTAL	38.65	100.00	

TABLE A.3

Communalities and Loadings After Varimax Rotation Of the 50-Item Operation Head Start Behavior Inventory

Item No. (Cf. Appendix)	Communalities	Loading on Factor I	II	III	IV
30	.87	.84	-.13	.35	.15
43	.73	.83	-.12	.16	.05
28	.73	-.79	.27	.19	-.02
49	.72	-.77	-.03	.32	.15
12	.64	-.77	-.19	-.14	.01
14	.62	-.75	.18	-.12	.08
22	.76	-.75	-.07	-.37	-.24
15	.73	.74	-.14	.35	-.19
09	.76	.73	-.18	.42	-.13
13	.54	.73	.09	-.08	.54
11	.68	.73	-.35	.15	-.05
17	.72	-.70	.48	-.05	.01
50	.46	.66	.15	-.02	-.06
32	.55	-.65	.07	-.33	-.11
34	.63	-.63	.27	-.36	-.17
27	.68	.62	-.19	.21	-.47
20	.79	.61	-.55	.07	.33
07	.66	-.60	-.04	-.54	-.01
46	.37	-.59	.05	.00	-.15
21	.57	.58	-.31	.29	-.23
47	.42	-.58	.28	-.06	.05
25	.69	.57	-.49	.29	.22
45	.67	.56	-.42	.28	-.34
48	.73	.55	.51	.39	-.10
35	.60	.51	-.27	.49	.17
01	.62	.48	-.37	.40	-.31
40	.84	.10	.90	.04	.10
18	.84	-.01	.88	-.12	.21
36	.85	-.09	.88	-.10	.25
26	.77	-.00	.85	.02	.22
23	.71	.08	-.84	.05	.03
16	.77	-.09	.83	-.09	.25
02	.75	.16	-.80	.28	.06
42	.71	-.29	.75	-.24	-.09
19	.61	-.24	.74	.01	.06
10	.64	-.26	.73	.00	.19
31	.74	.55	-.66	-.05	-.04
44	.48	.08	.62	-.05	.30
37	.57	-.15	.62	-.41	.07
38	.61	.28	-.56	.12	.45
04	.26	-.16	-.43	-.11	.19

TABLE A.3

Communalities and Loadings After Varimax Rotation Of the 50-Item Operation Head Start Behavior Inventory

Item No. (Cf. Appendix)	Communalities	Loading on Factor			
		I	II	III	IV
30	.87	.84	-.13	.35	.15
43	.73	.83	-.12	.16	.05
28	.73	-.79	.27	.19	-.02
49	.72	-.77	-.03	.32	.15
12	.64	-.77	-.19	-.14	.01
14	.62	-.75	.18	-.12	.08
22	.76	-.75	-.07	-.37	-.24
15	.73	.74	-.14	.35	-.19
09	.76	.73	-.18	.42	-.13
13	.54	.73	.09	-.08	.54
11	.68	.73	-.35	.15	-.05
17	.72	-.70	.48	-.05	.01
50	.46	.66	.15	-.02	-.06
32	.55	-.65	.07	-.33	-.11
34	.63	-.63	.27	-.36	-.17
27	.68	.62	-.19	.21	-.47
20	.79	.61	-.55	.07	.33
07	.66	-.60	-.04	-.54	-.01
46	.37	-.59	.05	.00	-.15
21	.57	.58	-.31	.29	-.23
47	.42	-.58	.28	-.06	.05
25	.69	.57	-.49	.29	.22
45	.67	.56	-.42	.28	-.34
48	.73	.55	.51	.39	-.10
35	.60	.51	-.27	.49	.17
01	.62	.48	-.37	.40	-.31
40	.84	.10	.90	.04	.10
18	.84	-.01	.88	-.12	.21
36	.85	-.09	.88	-.10	.25
26	.77	-.00	.85	.02	.22
23	.71	.08	-.84	.05	.03
16	.77	-.09	.83	-.09	.25
02	.75	.16	-.80	.28	.06
42	.71	-.29	.75	-.24	-.09
19	.61	-.24	.74	.01	.06
10	.64	-.26	.73	.00	.19
31	.74	.55	-.66	-.05	-.04
44	.48	.08	.62	-.05	.30
37	.57	-.15	.62	-.41	.07
38	.61	.28	-.56	.12	.45
04	.26	-.16	-.43	-.11	.19

TABLE A.3
(continued)

05	.83	.23	-.13	.87	-.03
24	.79	.33	-.04	.82	.10
33	.64	.07	-.13	.78	.07
39	.69	.24	-.22	.76	.07
08	.76	.50	.18	.69	.09
06	.58	-.30	.28	-.36	.53
29	.35	.23	.13	.17	.50
03	.24	-.23	.10	.01	.42
41	.11	.12	.18	-.02	.26

TABLE A.4

Factor Loadings After Varimax Rotation Of the 10-Item Behavior Observation Scale

Item	Loading on Factor I	Loading on Factor II
1. Cooperation with Adults	.80*	.25
2. Peer Relationships	.43	.70
3. Aggressive Reactions	.92*	-.02
4. Ability to Postpone Gratification	.84*	.28
5. Independence	.35	.66
6. Restraint of Motor Activity	.82*	.13
7. Type of Motor Activity	.78*	.27
8. Activity vs. Passivity of Speech	.00	.77*
9. Verbal skills	.17	.94*
10. Quality of Speech	.13	.83*

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*Items given equal weighting in computation of factor scores.

Table A.5

Frequency Distribution (in Per Cent) of Responses of Head Start Mothers To Selected Items About Education

(Strongly Agree = A; Mildly Agree = a; Mildly Disagree = d; Strongly Disagree = D)

Items		A	a	d	D	(N)
2.	I have obtained as much education as I wanted.	14	8	27	51	(49)
5.	Poor people have just as good a chance to get ahead as anybody else.	53	12	16	18	(49)
7.	Public schools in this neighborhood are too crowded.	50	13	24	13	(38)
10.	Teachers don't know enough about the kind of kids who come from this neighborhood.	35	18	20	28	(40)
11.	The members of different races and religions have just as good a chance to get ahead as anybody else.	59	18	4	18	(49)
13.	The schools don't pay enough attention to children who find learning difficult.	21	17	23	38	(47)
14.	The schools don't pay enough attention to children who are smarter than average.	20	13	30	37	(46)
16.	Teenagers go to school because they have to, not because they want to.	13	30	28	30	(47)
20.	Today's schools are neglecting reading, writing, and arithmetic.	9	14	11	66	(44)
26.	Right from the very first grade, teachers should teach the child at his own level, rather than at the level of the grade he is in.	60	15	10	15	(48)

Table A.5
(continued)

Item		A	a	d	D	(N)
30.	It is better to base learning on the child's own experience than around specific subject matter.	30	28	30	11	(46)
34.	Education should emphasize competition because life is essentially a struggle.	49	27	20	4	(49)
35.	Teachers should keep in mind that pupils are lazy and have to be made to work.	35	31	10	23	(48)
36.	Teachers should be allowed to teach what they think is right and proper.	44	19	15	23	(48)
		%				
46.	Do you think your child has as good a chance as any other child of doing well in school?					
	(1) very poor	-				
	(2) fairly poor	-				
	(3) average or mixed	15				
	(4) fairly good	19				
	(5) very good	65				
	Total					N=(52)
48.	Would you be disappointed if your child brought home a report card from school and all the grades were:					
	(1) D's	24				
	(2) all C's	51				
	(3) all B's	25				
	Total					N=(51)

Table A.5
(continued)

Item	%	(N)
52. Do you think that parents should help children with their homework?		
(1) NEVER help	4	
(2) SOMETIMES help	66	
(3) ALWAYS help	30	
Total		N=(53)
56. Do you feel that your child will be learning about things which will be useful for him in his later life?		
(1) definitely useless in later life	2	
(2) probably useless	-	
(3) mixed or neutral	9	
(4) probably useful	32	
(5) definitely useful	57	
Total		N=(53)
63. In general, what kind of job do you feel the public schools are doing?		
(1) very poor	2	
(2) poor	2	
(3) fair	31	
(4) good	44	
(5) excellent	21	
Total		N=(52)
64. How well did you get along with your teachers when you went to school?		
(1) very poorly	8	
(2) fairly poorly	-	
(3) average or mixed	25	
(4) fairly well	23	
(5) very well	45	
Total		N=(53)

Table A.6

Communalities and Loadings After Varimax Rotation of 20 Selected Attitude Variables

Item #	Communal-ities	I	II	III	IV
2	.37	-.02	.26	.30	.47
5	.64	-.18	.02	.74	.23
7	.20	.01	.10	-.42	.08
10	.24	.33	.35	.09	-.04
11	.54	-.58	.12	.45	.01
13	.54	.64	-.05	-.09	-.35
14	.62	.45	.62	-.15	.10
16	.27	.05	.45	.01	.25
20	.53	.66	-.03	-.30	-.05
26	.34	.56	-.09	.13	-.04
30	.16	-.14	-.05	.01	.37
34	.23	.17	-.36	-.09	.24
35	.61	.43	.20	.60	.13
36	.39	-.17	-.03	.43	.42
46	.46	.07	.18	.14	-.64
48	.17	-.03	-.12	-.12	-.37
52	.17	-.19	.29	.26	.05
56	.08	-.11	.26	-.07	.03
63	.54	.43	.55	-.05	-.21
64	.76	-.13	.85	.10	-.08

TABLE A.7

Correlations Between Maternal Educational Attitudes And Measures of the Child's Adjustment During Head Start (df=60)[a]

Measure	Initial Performance Attitude Factor				Final Performance Attitude Factor			
	I	II	III	IV	I	II	III	IV
Ammons MA	001	-026	124	083	-047	028	168	070
Goodenough DAP MA	-130	111	-086	-042	-091	-061	-180	-125
Bender-Gestalt	-076	-039	153	027	064	-051	115	-016
Metropolitan Readiness								
Word Meaning	-002	151	137	-014	-230	164	-028	-086
Sentences	-060	133	-039	-027	-147	108	041	-004
Information	-075	-027	146	-071	-325**	106	-020	-039
Matching	-147	095	018	-047	-235	080	-030	045
Numbers	-078	104	-030	066	-292*	130	043	062
Preschool Inventory								
Personal Orientation	-240	-171	043	054	-275*	-137	032	042
Body Image	-160	081	160	141	-226	-016	043	103
Number Concepts	-208	029	002	074	-257*	036	-011	100
General Information	-235	003	-060	-092	-312*	-078	-027	-047
Visual Discrimination	-225	008	074	046	-357**	-065	-049	108
Relationships	-241	-124	045	115	-301*	-007	000	074
Following Directions	-212	069	095	-019	-345**	020	-076	-047
Comprehension of Social Roles	-230	-121	028	005	-308*	-151	-048	025

TABLE A.7
(continued)

Measure	Initial Performance Attitude Factor				Final Performance Attitude Factor			
	I	II	III	IV	I	II	III	IV
Operation Head Start Behavior Inventory								
Factor 1	-135	063	061	-199	-193	027	027	-150
Factor 2	061	-084	089	240	109	-026	016	211
Factor 3	-127	-002	079	-114	-062	-001	038	-019
Factor 4	042	-095	072	151	-041	-060	069	077
Classroom Observation Rating Scales								
Factor 1	-192	018	049	-283*	-065	078	088	-236
Factor 2	-149	054	261*	005	-135	063	106	096

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[a] Means were used to estimate missing data

*$p < .05$

**$p < .01$

TABLE A.8

Summary of Background Data on Children With and Without Head Start Experience In Kindergarten and First Grade

Variable	Children With Head Start Experience (N=27)		Children Without Head Start Experience (N=127)			
	M	SD	M	SD	t	p
Age	67.78	5.97	72.72	6.88	-3.80	<.01
No. of Children	3.67	1.33	3.85	1.77	-0.61	NS
Birth Order	2.44	1.28	2.59	1.71	-0.49	NS

	Children With Head Start Experience		Children Without Head Start Experience			
					x^2	p
	Male	Female	Male	Female		
Sex	14	13	69	58	.000	NS
	White	Negro	White	Negro		
Race	11	16	41	86	.384	NS
	Eng.	Other	Eng.	Other		
Language at Home	22	5	106	21	.001	NS
	K	1st	K	1st		
School Grade	22	5	60	67	9.154	<.01

TABLE A.9

Summary of t-tests for Differences On the Assessment of Language Skills Scale Between Children With and Without Head Start Experience

	Children With Head Start Experience (N=27)		Children Without Head Start Experience (N=127)			
Scale (Item)	M	SD	M	SD	t	p
A. Language Structure						
(1)	1.50	0.99	1.73	0.94	-1.07	NS
(2)	1.19	0.56	1.56	0.95	-2.74	<.01
(3)	2.07	1.27	2.23	1.17	-0.59	NS
(4)	3.22	0.85	2.98	0.74	1.35	NS
(5)	3.89	1.16	3.17	1.24	2.91	<.01
B. Speech Production						
(1)	4.00	1.33	3.42	1.28	2.08	<.05
(2)	4.19	1.15	3.60	1.14	2.41	<.05
(3)	4.04	1.09	3.44	1.20	2.53	<.05
C. Naming						
(1)	4.26	0.86	3.73	1.07	2.75	<.01
(2)	4.11	1.01	3.74	1.08	1.70	NS
(3)	4.15	0.95	3.74	1.11	1.95	NS
(4)	4.22	1.12	3.74	1.18	2.00	<.05
(5)	4.37	1.01	3.86	1.14	2.31	<.05
D. Linguistic Skills						
(1)	3.39	1.39	3.25	1.16	0.47	NS
(2)	3.12	1.37	2.82	1.09	1.07	NS
(3)	3.27	1.46	2.99	1.31	0.92	NS
(4)	3.15	1.38	2.75	1.16	1.39	NS
(5)	3.12	1.40	2.69	1.15	1.46	NS
(6)	2.77	1.31	2.43	1.83	1.25	NS
(7)	2.39	1.42	2.17	1.08	0.74	NS
(8)	2.15	1.41	2.11	1.09	0.14	NS
(9)	2.92	1.50	2.62	1.17	0.99	NS
(10)	2.81	1.39	2.73	1.30	0.25	NS
(11)	2.89	1.21	2.79	1.18	0.37	NS
E. Auditory Discrimination						
(1)	4.65	0.75	3.87	1.24	4.31	<.01
(2)	4.50	0.95	3.60	1.36	4.09	<.01
(3)	4.23	1.31	3.68	1.34	1.95	NS
(4)	3.39	1.06	3.32	1.17	0.30	NS

TABLE A.9
(continued)

	Children With Head Start Experience (N=27)		Children Without Head Start Experience (N=127)			
Scale (Item)	M	SD	M	SD	t	p
F. Listening Comprehension						
(1)	4.37	1.02	3.71	1.22	2.79	<.01
(2)	3.46	1.30	3.13	1.11	1.21	NS
(3)	3.23	1.28	2.99	1.09	0.92	NS
(4)	2.85	1.29	2.62	1.10	0.85	NS
(5)	2.96	1.25	2.78	1.22	0.66	NS
(6)	3.65	1.13	3.40	1.06	1.06	NS
(7)	3.65	1.38	3.42	1.34	0.79	NS

TABLE A.10

Summary of Analyses of Variance for Differences in Background Characteristics For Children With and Without Head Start Experience, By Ratings of SES

	Means[1]				Mean[2]			
Characteristic	NHS/LC	NHS/MC	HS/LC	HS/MC	Square	df	F	p
Age	71.22	71.29	71.17	69.00	11.52	1	1.07	NS
					9.15	1	<1	
					10.45	1	<1	
					10.74			
No. of Children in Family	4.22	3.65	3.50	3.29	2.45	1	1.33	NS
					1.30	1	<1	
					0.27	1	<1	
					1.84	35		
Sex (M=1;	1.33	1.41	1.33	1.57	0.05	1	<1	NS
					0.21	1	<1	NS
					0.05	1	<1	NS
					0.26	35		
Race (W=1; N=2)	1.78	1.53	1.83	1.43	0.00	1	<1	NS
					0.89	1	2.52	NS
					0.05	1	<1	NS
					0.35	35		

---

[1] NHS/LC= Non Head Start, lower class
NHS/MC= Non Head Start, middle class
HS/LC= Head Start, lower class
HS/MC= Head Start, middle class

[2] First Mean Square is NHS/HS. Second is LC/MC. Third is the interaction effect. Fourth is within cells.

TABLE A.11

Summary of Analyses of Variance For Differences in Kindergarten Report Card Data For Children With and Without Head Start Experience, By Ratings of SES

	Means[1]				Mean[2]			
Measure	NHS/LC	NHS/MC	HS/LC	HS/MC	Square	df	F	p
Social Behavior	3.00	3.29	2.50	2.70	2.77	1	4.50	.05
					0.55	1	<1	NS
					0.02	1	<1	NS
					0.62	42		
Work and Study Habits	3.00	3.24	2.67	2.60	2.22	1	<1	NS
					0.07	1	<1	NS
					0.22	1	<1	NS
					0.61	42		
Oral Expression	2.67	3.38	2.83	3.00	0.11	1	<1	NS
					1.82	1	5.56	.025
					0.70	1	2.15	NS
					0.33	42		
Health Education	3.11	3.43	3.00	3.40	0.05	1	<1	NS
					1.21	1	3.52	NS
					0.02	1	<1	NS
					0.34	42		
Absence	30.11	21.14	15.00	23.80	338.11	1	2.45	NS
					0.06	1	<1	NS
					688.23	1	4.99	.05
					137.93	41		

[1,2] See footnotes, Table A.10.

TABLE A.12

Summary of Analyses of Variance For Differences in First Grade Performance Data For Children With and Without Head Start Experience, By Ratings of SES

Measure	Means[1]				Mean[2] Square	df	F	p
	NHS/LC	NHS/MC	HS/LC	HS/MC				
N.Y. State Readiness	17.29	41.55	16.17	32.33	226.99	1	<1	NS
					3473.31	1	7.58	<.01
					139.32	1	<1	NS
					458.19	38		
Gates	0.77	1.30	0.85	0.91	0.21	1	<1	NS
					0.75	1	2.06	NS
					0.47	1	1.30	NS
					0.36	40		
Arithmetic	2.00	3.24	2.50	2.70	0.00	1	<1	NS
					4.86	1	6.50	<.025
					2.53	1	3.39	NS
					0.75	42		
Social Studies	2.33	3.14	2.83	2.70	0.01	1	<1	NS
					1.07	1	2.31	NS
					2.09	1	4.50	<.05
					0.46	42		
Handwriting Skills	2.44	3.19	2.00	3.10	0.67	1	1.07	NS
					8.01	1	12.76	<.001
					0.29	1	<1	NS
					0.63	42		
Social Behavior	2.22	3.10	2.20	2.60	0.58	1	1.16	NS
					3.53	1	7.04	<.025
					0.49	1	<1	NS
					0.50	41		

TABLE A.12
(continued)

Measure	Means[1]				Mean[2] Square	df	F	p
	NHS/LC	NHS/MC	HS/LC	HS/MC				
Work and Study Habits	1.89	3.24	2.00	2.90	0.12	1	<1	NS
					11.89	1	18.10	<.001
					0.47	1	<1	NS
					0.66	42		
Oral Expression	2.44	3.05	3.00	2.78	0.18	1	<1	NS
					0.33	1	<1	NS
					1.56	1	2.17	NS
					0.72	40		
Absence	12.78	6.95	8.33	5.00	96.19	1	5.61	<.025
					197.19	1	11.51	<.005
					14.60	1	<1	NS
					17.14	42		

[1,2] See footnotes, Table A.10.

APPENDIX B

B.1 Bender-Gestalt Reproductions Scoring Manual
B.2 Preschool Inventory and Scoring Manual
B.3 Operation Head Start Behavior Inventory
B.4 Classroom Observation Rating Scales
B.5 Assessment of Language Skills of 3-6 Year-Old Children

Appendix B.1

BENDER GESTALT REPRODUCTIONS
SCORING MANUAL

Directions:

Score plus if child demonstrates mastery at perceptual ages indicated in parenthesis score is highest perceptual age on each design. Then sum scores on each design and divide by number of scorable designs to arrive at perceptual age estimate.

Design #	
A	circularity (3) squaredness (5) diamondness (7)
1	scribble (3) crude circles (4) clear circles - spaced (5) dots (6)
2	scribble (3) crude circles (4) ordered circles incomplete rows (5) ordered - complete circles and slant (6)
3	scribble (3) crude circles (4) crude circles - horizontal drift - incomplete rows (5) O's approx. of X'mas tree design proper angulation (6) dots, good rows, angulation (7)
4	scribble (3) 2 figures - may be closed crude (4) 2 open figures - crude (5) 2 open figures - approaching good curvilinearity and angularity (6)
5	scribble (3) crude continuous line up of Gestalt (4) rep into discrete circles - crude (5) good circles - good Gestalt (6) dots - good Gestalt (7)

6 scribble (3)
2 lines - not connected (Intersect) (4)
intersecting lines - no curves (5)
intersecting with waves (crude) (6)
intersecting with good waves and
intersecting near midpoint (7)

7 scribble (3)
2 closed figures - crude (4)
2 closed elongated figures (5)
angularity, elongation, crude
integrated (6)

8 scribble (3)
2 closed figures - enclosed, crude (4)
2 closed - enclosed, elongated (5)
2 closed - enclosed, elongated with angles and
2 closed - enclosed, elongated with angles (6)
2 closed - good Gestalt (7)

2 OF 2

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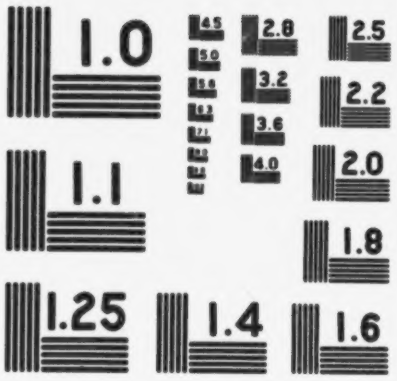
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4.5
5.0
5.6
2.8
3.2
3.6
4.0
2.5
2.2
2.0
1.1
1.8
1.25
1.4
1.6

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963

Appendix B. 2

PRESCHOOL INVENTORY

Ask the child the following questions:

		Knows	Does Not Know
1.	What is your name?	1.____	____
2.	If child gives first name only, probe for last name; for example, "Johnny what? What's your last name?"	2.____	____
3.	Give the child a sheet of plain white paper and a crayon and say, "Draw me a picture of a man ...a whole man, not just part of a man." After the child has finished, say, "Very good, " take the drawing and continue with these questions:	3.____	____
4.	How old are you?	4.____	____
5.	When is your birthday?	5.____	____
6.	Where do you live?	6.____	____
7.	What school will you go to?	7.____	____
8.	What is your teacher's name?	8.____	____
9.	Who are some of the children in your group? Probe for five names. If child says first name only, say "X who?" First names	9.____ ____ ____ ____ ____ 1 2 3 4 5	
10.	Last names	10.____ ____ ____ ____ ____ 1 2 3 4 5	

Point to the following parts of the examiner's body and say, "What is this?" Afterwards for all items missed, "Show me your_____."

		Gives Name	Shows	Wrong
11.	Ear	11.____	____	____
12.	Finger	12.____	____	____
13.	Neck	13.____	____	____
14.	Back	14.____	____	____
15.	Eye	15.____	____	____
16.	Elbow	16.____	____	____
17.	Heel	17.____	____	____

		Gives Name	Shows	Wrong
18.	Shoulder	18.____	____	____
19.	Eyebrow	19.____	____	____
20.	Knee	20.____	____	____

Ask "How many ______do you have?"

		Right	Wrong
21.	Eyes	21.____	____
22.	Noses	22.____	____
23.	Ears	23.____	____
24.	Heads	24.____	____
25.	Feet	25.____	____
26.	Hands	26.____	____
27.	Toes	27.____	____
28.	Mouths	28.____	____
29.	Necks	29.____	____
30.	Broken arms (or something else the child obviously doesn't have to elicit "none")	30.____	____

Ask "How many wheels does a _____have?"

31.	Car	31.____	____
32.	Bicycle	32.____	____
33.	Tricycle (or baby bicycle)	33.____	____
34.	Wheelbarrow	34.____	____
35.	Rowboat	35.____	____

1 2 3 4 5

36. "Let's hear you count out loud." If no response, start child by saying, "One, ..." 36.____ ____

37. "Do you know what a corner is? Show me" (hold up piece of paper). 37.____ can ____ can't

38. "How many corners does this sheet of paper have?" 38.____ knows ____ doesn't

For the next few items the examiner takes out the box of 12 checkers, all the same color. After the child has had the opportunity to manipulate them briefly, the E. takes them, seeing that all the checkers touch one another, and does the following:

Put the checkers in two groups (all flat on the table) of varying numbers in front of the child and ask (pointing consecutively to the two groups) "Which one has more checkers in it?" Right Wrong

Groups

39. 2 & 8 39.______ ______

40. 5 & 6 40.______ ______

41. 6 & 6 41.______ ______

42. Recombine and make two groups of 8 and 2. Say, pointing, "Which group has fewer? Less?" 42.______ ______

Examiner removes 7 checkers, leaving 5, and instructs the child as follows: "Put these checkers next to each other in a line/row." Examiner sees to it that a half-inch space is made between each two blocks. Give whatever guidance is needed to yield a fairly straight row. Say: Right Wrong

43. "Give me the middle one." (Note: credit first or last in terms of child's choice, i.e., either end of the row of blocks. All subsequent choices would be consistent with that choice, however.) 43.______ ______

44. "Give me the first one." 44.______ ______

45. "Give me the last one." 45.______ ______

46. "Give me the second one." 46.______ ______

47. "Give me the next-to-last block." 47.______ ______

Next, line up the checkers in a row, contiguous. "Let's pretend this is a train. You know what a train is, don't you? You know it has lots of cars one after the other, like this."

48. "Do you know what we call the first car, the one that pulls the train?" (probe to elicit engine) 48.______ ______

49. "What do we call the last car on a freight train?" 49.______ ______

If no correct response is given to either of the above:

50. "What pulls the train, the engine or caboose?" 50.______ ______

51. "What do we call the last car on the freight train, the engine or the caboose?" 51.______ ______

Show the child the page with the line, triangle, circle and square drawn on it. Ask him to name:

						Identifies	
			Names	Similar	Wrong	Yes	No
52.	"What do we call this?"(circle)	52.					
53.	(line)	53.					
54.	(square)	54.					
55.	(triangle)	55.					

"Now I'd like you to make some drawings: Make one like this:"

			Recognizable	Unrecognizable
56.	Line	56.		
57.	Circle	57.		
58.	Square	58.		
59.	Triangle	59.		

"Which one is most like a _____?"

			Right	Wrong
60.	Wheel	60.		
61.	Window	61.		
62.	Piece of string	62.		
63.	Tent or teepee	63.		
64.	Ice cream cone	64.		
65.	Plate or dish	65.		
66.	Stick	66.		

"Which is bigger, a___or a ___?"

67.	Bell or bicycle	67.		
68.	Tree or flower	68.		
69.	Telephone or television	69.		
70.	Man or boy	70.		
71.	Mosquito or grasshopper	71.		
72.	Fly or butterfly	72.		

"Which usually goes slower, a___ or a ___?"

73.	Horse or dog	73.		
74.	Car or bicycle	74.		

		Right	Wrong
75.	Train or rocket	75.____	____

"Which is heavier, a ___ or a___?"

		Right	Wrong
76.	Butterfly or bird	76.____	____
77.	Brick or shoe	77.____	____
78.	Feather or fork	78.____	____

"I want you to do the following things for me."

		Right	Wrong
79.	Close your eyes	79.____	____
80.	Raise your hand	80.____	____
81.	Show me your teeth	81.____	____
82.	Show me your fingernails	82.____	____
83.	Sit	83.____	____
84.	Say "Hello" very loudly	84.____	____
85.	Say "Helloe" very softly	85.____	____
86.	Stand up	86.____	____
87.	Turn around	87.____	____
88.	Face the door	88.____	____
89.	Jump	89.____	____
90.	Sit down	90.____	____

"Think of all the things your mother gives you to eat and the things she gives you to eat with. Name all the things you can think of."

91. ____

____ 91.____ ____

Place the 8 crayola crayons (or similar high intensity crayons of red, orange, yellow, green, blue,violet, brown and black) on the table and line them up about 1/2 inch apart. Ask the child to name them for you. If he does not name all correctly, for those missed, have him "point to the ____one."

		Right	Names Wrong	Right	Pointed Wrong
92.	Red	92.____	____	____	____
93.	Yellow	93.____	____	____	____

			Names		Pointed	
			Right	Wrong	Right	Wrong
94.	Orange	94.	______	______	______	______
95.	Green	95.	______	______	______	______
96.	Blue	96.	______	______	______	______
97.	Purple	97.	______	______	______	______
98	Brown	98.	______	______	______	______
99.	Black	99.	______	______	______	______

. With the crayons still on the table, ask him the following questions. If he gives an incorrect answer or indicates he doesn't know, have him show you the color. If he still misses, score "wrong."

			Says		Pointed	
			Right	Wrong	Right	Wrong
100.	Fire	100.	______	______	______	______
101.	Grass	101.	______	______	______	______
102.	Snow	102.	______	______	______	______
103.	Carrot	103.	______	______	______	______
104.	The sky	104.	______	______	______	______
105.	Night	105.	______	______	______	______

"Have you ever been on a swing? You know how it goes...up and down and back and forth?" (accompany with gesture)

			Says	Shows	
				Right	Wrong
106.	Which way does a saw go?	106.	____	______	______
107.	Which way does an elevator	107.	____	______	______
108.	Which way does a ferris wheel go?	108.	____	______	______
109.	Which way does a phonograph record go?	109.	____	______	______
110.	Which way does a waterfall go?	110.	____	______	______

. Record responses to the following items verbatim. Score as 2 (clear, correct), 1 (approximation, 0 (wrong).

			"2"	"1"	"0"
111.	When do we eat breakfast?	111.	____	____	____

____

131. Put all the cars on one side of the table and all the boxes on the other side. 131. ALL CARS____ONE____ALL BOXES___OTHER___

132. Put 3 cars in the big box. 132. 3____IN_____ ____

133. Put 2 cars behind the box in the middle. 133. 2____BEHIND____MIDDLE____

134. Give everything to me. 134. ______________________________

Record answers verbatim.		Function	Neg.	Pos.	Assn'n.	Wrong
135. What does a doctor do? ________________________	135.	______	____	____	_____	____
136. What does a policeman do? ________________________	136.	______	____	____	_____	____
137. What does a dentist do? ________________________	137.	______	____	____	_____	____
138. What does a teacher do? ________________________	138.	______	____	____	_____	____
139. What does a father do? ________________________	139.	______	____	____	_____	____
140. What does a nurse do? ________________________	140.	______	____	____	_____	____
141. What does a mother do? ________________________	141.	______	____	____	_____	____
142. What does a soldier do? ________________________	142.	______	____	____	_____	____

Take out the printed sheet and one crayon and say as follows:"See these pictures? I'm going to draw a line from the boy to the cake, like this." E draws line with the pencil. Hand crayon to child and say, "Now you do it."

		Yes	No
143. Traces successfully	143.	___	___

"I want you to draw some more lines for me, one at a time. Draw a line from the ___ to the____."

"2" "1" "0"

112. What day do people go to church?________ 11..____ ____ ____

113. What day is today?________________________ 113.____ ____ ____

114. When your mother says it's time to go to bed, what is it like outside?__________
____ 114.____ ____ ____

115. What do we call the time of the year when it is hottest?____________________ 115.____ ____ ____

116. What do we call the time of year when it is coldest?________________________ 116.____ ____ ____

117. What time of year is it now?____________ 117.____ ____ ____

118. If your mother wanted to call up and talk to a friend, what would she use?
____ 118.____ ____ ____

119. If you want to find a lion where would you look?______________________________ 119.____ ____ ____

120. If you wanted to buy some gas, where would you go?____________________________ 120.____ ____ ____

121. If you were sick, who would you go to?
____ 121.____ ____ ____

122. If you wanted to find a boat, where would you look?______________________________ 122.____ ____ ____

123. If you wanted to read something, what would you do?________________________________ 123.____ ____ ____

Take out the three cars; red, yellow and blue; and the three boxes, black, white, and green. Be sure black box is bottom up. After each item, replace the cars in front of the child and put on the table.

124. Put a car on a box. 124. ON____

125. Put a car in a box. 125. IN____

126. Put a car under a box. 126. UNDER ____

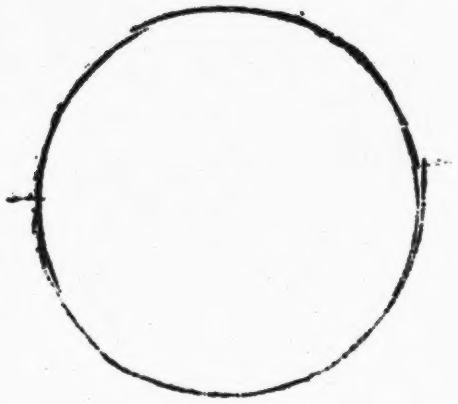
127. Put the red car on the black box. 127.RED____BLACK____ON____

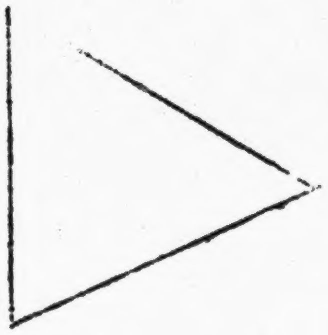
128. Put the blue car on the green box.128.BLUE____ON____GREEN____

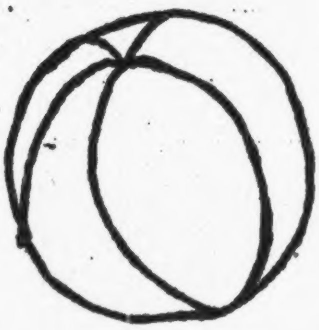
129. Put the yellow car on the little box. 129.YELLOW____ON____LITTLE____

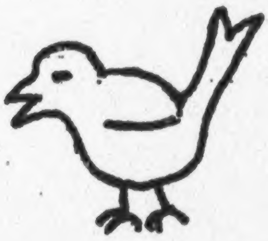
130. Put one car in the middle-sized box. box. 130.ONE____IN____MID-S____

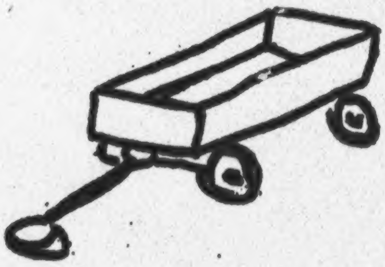
		YES	NO
144. Bird to wagon	144.	____	____
145. Clock to cake	145.	____	____
146. Dog to boy	146.	____	____
147. Girl to ball	147.	____	____
148. Bird to other bird	148.	____	____

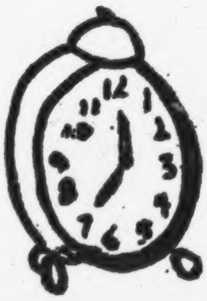


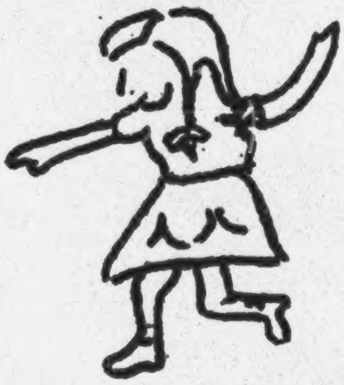


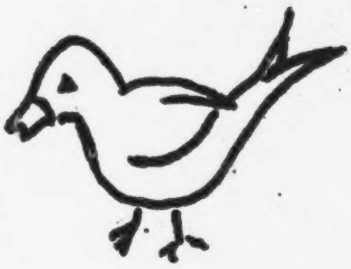


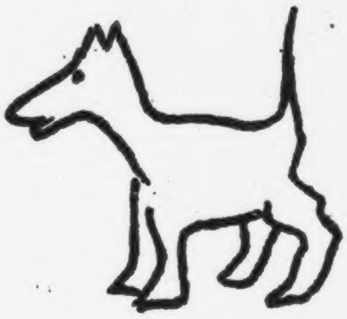


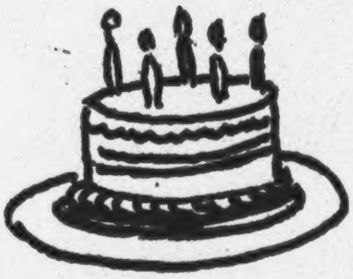


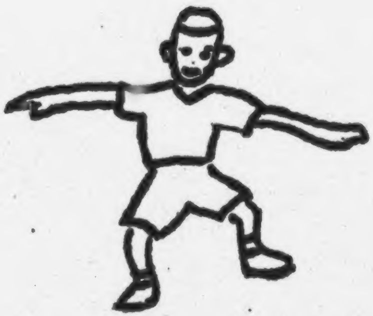












KEY TO SCORING PRESCHOOL INVENTORY

SCALE I: Personal Orientation (person, place, time)

One point each for items #1, 2, 4, 5, 6, 7, 8

Two points each for items #9 (if 3 or more names; 1 point if 1 or 2 names); #113 and #117 (if clear and correct; 1 point for approximation).

TOTAL: 15 points

SCALE II: Body Image (recognition of body parts)

Two points for naming, one point for showing items #11 thru 20.

TOTAL: 20 points

SCALE III: Number Concepts (cardinal and ordinal numbers)

One point each, items #21 thru 47; do not score #37 or #38.

TOTAL: 25 points

SCALE IV: General Information

Two points each if correct on # 48, 49.

One point #50 if correct and if zero on #48
One point #51 if correct and if zero on #49
Two points each if said correctly, #106 thru #112, 114 thru 116, 118 thru 123.
One point each if shown correctly

TOTAL: 36 points

SCALE V: Visual Discrimination and Association (shape and color)

Two points each if named correctly, 1 point each if describes similar object, items #52 thru 55.
Two points each if named correctly, 1 point each if pointed correctly, items #92 thru 105.

TOTAL: 36 points

SCALE VI: Relationships (concepts of similarity and difference, shape, size, speed, and weight

One point each, items #60 thru 78.

TOTAL: 19 points

SCALE VII: Following Directions

One point each, items #79 thru 90, 124 thru 126, 134, 143 thru 148.
One point for each of two units in item #132; one point for each of three units items #127 thru 130, 133; one point for each of four units, item #131.

TOTAL: 43 points

SCALE VII: Comprehension of Social Roles

Two points each, if function described correctly, one point each for general association, items #135 - 142.

TOTAL: 16 points

OPERATION HEADSTART BEHAVIOR INVENTORY

Instructions

Please describe as accurately as possible how this child behaves by circling one of the four responses to each question:

++ (Very Much Like)
+ (Somewhat Like)
- (Very Little Like)
-- (Not At All Like)

Please give a response to every item and base your response upon your personal observation and experience with the child.

		Very Much Like	Some-What Like	Very Little Like	Not At All Like
1.	Is usually carefree; rarely becomes frightened or apprehensive.	++	+	-	--
2.	Is sympathetic, considerate, and thoughtful toward others.	++	+	-	--
3.	Is easily distracted by things going on around him.	++	+	-	--
4.	Is very suggestible; lets other children boss him around.	++	+	-	--
5.	Talks eagerly to adults about his own experiences and what he thinks.	++	+	-	--
6.	Is unduly upset or discouraged if he makes a mistake or does not perform well.	++	+	-	--
7.	Often keeps aloof from others because he is uninterested, suspicious, or bashful.	++	+	-	--
8.	Defends or praises his own efforts.	++	+	-	--
9.	Is confident that he can do what is expected of him.	++	+	-	--
10.	Is jealous; quick to notice and react negatively to kindness and attention bestowed upon other children.	++	+	-	--

		Very Much Like	Some what Like	Very Little Like	Not At All Like
☐	11. Is methodical and careful in the tasks that he undertakes.	++	+	-	--
☐	12. Is rarely able to influence other children by his activities or interests.	++	+	-	--
☐	13. Tries to figure out things for himself before asking adults or other children for help.	++	+	-	--
☐	14. Greatly prefers the habitual and familiar to the novel and the unfamiliar.	++	+	-	--
☐	15. Appears to trust in his own abilities.	++	+	-	--
☐	16. Has little respect for the rights of other children; refuses to wait his turn, usurps toys other children are playing with, etc.	++	+	-	--
☐	17. Seems disinterested in the general quality of his performance.	++	+	-	--
☐	18. Responds to frustration or disappointment by becoming aggressive or enraged.	++	+	-	--
☐	19. Is excessive in seeking the attention of adults.	++	+	-	--
☐	20. Sticks with a job until it is finished.	++	+	-	--
☐	21. Goes about his activities with a minimum of assistance from others.	++	+	-	--
☐	22. Is constricted, inhibited, or timid; needs to be urged before engaging in activities.	++	+	-	--
☐	23. Is even-tempered, imperturable; is rarely annoyed or cross.	++	+	-	--
☐	24. Is reluctant to talk to adults; responds verbally only when urged.	++	+	-	--
☐	25. Works earnestly at his classwork or play, doesn't take it lightly.	++	+	-	--
☐	26. Is often quarrelsome with classmates for minor reasons.	++	+	-	--

	Very Much Like	Some What Like	Very Little Like	Not At All Like
27. Does not need attention or approval from adults to sustain him in his work or play.	++	+	-	--
28. When faced with a difficult task, he either does not attempt it or gives up very quickly.	++	+	-	--
29. Doesn't like to be interrupted when engaged in demanding activities, e.g., puzzles, painting, constructing things.	++	+	-	--
30. Welcomes changes and new situations; is venturesome, explores and generally enjoys novelty.	++	+	-	--
31. Calmly settles difficulties that arise without appeal to adults or others.	++	+	-	--
32. Is reluctant to use imagination; tends not to enjoy "make-believe" games.	++	+	-	--
33. Likes to talk with or socialize with teacher.	++	+	-	--
34. Often will not engage in activities unless strongly encouraged.	++	+	-	--
35. Is eager to inform other children of the experiences he has had.	++	+	-	--
36. Emotional response is customarily very strong; over-responds to usual classroom problems, frustrations and difficulties.	++	+	-	--
37. Is uncooperative in group activities.	++	+	-	--
38. Is usually polite to adults; says "please, " "thank you, " etc.	++	+	-	--
39. Asks many questions for information about things, persons, etc. (Emphasis here should be on questions prompted by genuine curiosity rather than bids for attention.	++	+	-	--
40. Usually does what adults ask him to do.	++	+	-	--
41. Requires the company of other children; finds it difficult to work or play by himself.	++	+	-	--
42. Responds to frustration or disappointment by becoming sullen, withdrawn, or sulky.	++	+	-	--

	Very Much Like	Some what Like	Very Little Like	Not At All Like
43. Demonstrates imaginativeness and creativity in his use of toys and play materials.	++	+	-	--
44. Insists on maintaining his rights, e.g., will not yield his place at painting, or at the carpentry bench, etc.; insists on getting his turn on the slide or in group games, etc.	++	+	-	--
45. Is wanted as a playmate by other children.	++	+	-	--
46. Is lethargic or apathetic; has little energy or drive.	++	+	-	--
47. Has a tendency to discontinue activities after exerting a minimum of effort.	++	+	-	--
48. Is generally a happy child.	++	+	-	--
49. Approaches new tasks timidly and without assurance; shrinks from trying new things.	++	+	-	--
50. What he does is often imitated by other children.	++	+	-	--

Appendix B.4

CLASSROOM OBSERVATION RATING SCALE

I. COOPERATION WITH ADULTS

1. This child is exceedingly uncooperative and appears to resist in some manner almost any request made of him. Resistance may be in the form of ignoring requests, overt refusal to comply, complying verbally but not following through in action, etc.
2. This child is cooperative at times but is often resistant to suggestions made by adults. He needs considerable supervision and many reminders before he complies with requests.
3. This child usually complies with requests after several reminders.
4. This child is usually eager to comply with suggestions from adults but sometimes has to be reminded.
5. This child is exceedingly cooperative and almost always complies the first time a request is made.

II. PEER RELATIONSHIPS

1. This child engages in solitary play most of the time with little parallel play and no cooperative play.
2. This child occupies himself equally between solitary and parallel play.
3. This child engages in solitary or parallel play most of the time and occasionally engages in cooperative play.
4. This child occupies himself equally between cooperative play and with parallel or solitary play.
5. This child occupies himself predominantly with cooperative play and occasionally with parallel play or solitary play.

III. AGGRESSIVE REACTIONS

This child expresses anger verbally or physically, i.e., name calling, threats, protests, attacking, destroying objects.

1. Most of the time
2. Often
3. Occasionally
4. Seldom
5. Not at all

IV. ABILITY TO POSTPONE GRATIFICATION

1. This child shows little ability to postpone gratification of any impulse and will get very upset if asked to wait for anything; demonstrates no ability to share or take turns.
2. This child shows considerable difficulty in postponing gratification of impulses and is only able to wait for very short periods of time before disregarding prohibitions.
3. This child shows some difficulty in postponing gratification but is able to wait for short periods of time for some things; although he grabs desired objects, he sometimes asks for things instead.
4. This child usually is able to wait for short periods of time when asked to do so by adult. Usually asks rather than grabs for things, usually able to share and take turns with little help from adults.
5. This child usually able to wait for things when asked to do so. Spontaneously takes turns and shares with other children.

V. INDEPENDENCE

1. This child seldom undertakes or completes a task unless he is told what to do and is given constant help and encouragement while he is doing it.
2. This child requires encouragement and assistance from others to complete a task even when he is doing something which he could complete on his own.
3. This child usually completes what he has started and seeks some praise and encouragement on projects.
4. This child sometimes starts and completes projects without help or encouragement.
5. This child starts and completes "projects" such as puzzles, paintings, models, structures made of blocks, etc., with no help or need of encouragement from adults or peers - he selects his own activities whenever possible.

VI. RESTRAINT OF MOTOR ACTIVITY

1. This child is in almost continual motion and his movements are characterized by occurring at a very high rate of speed. It is difficult to engage him in any form of subdued or quiet activity for more than one minute at a time.
2. This child is extremely active and his movements are characteristically quite rapid. He is able to engage in subdued or quiet activity for 4 or 5 minutes and with some external help can engage in such activity for about 10 or 12 minutes.
3. This child is quite active; however, he is able to engage in subdued or quiet activity for 10 to 12 minutes and with some external help can engage in such an activity for about 25 or 30 minutes.
4. This child, although active at other times, is able to engage in subdued or quiet activity for about 25 or 30 minutes and with some external help can engage in such activities for about 40 to 45 minutes.
5. This child is able to engage in subdued or quiet activity for about an hour and with some external help can engage in such activities for longer periods.

VII. TYPE OF MOTOR ACTIVITY

Measure of the type of motor activity without consideration for intensity of activity. Large-muscle motor activity is noted in such movements as walking, running, bending, climbing, bold painting or coloring strokes, pushing or pulling objects, etc. Fine-muscle motor activity is noted in such movements as matching puzzle pieces, scissor cutting, picking up and fitting small objects together.

1. This child predominantly engages in large-muscle motor activity with little or no fine-muscle motor activity.
2. This child engages in both types of motor movement but more in large-muscle motor activity.
3. This child appears to spend equal time in both large and fine-muscle motor activity.
4. This child engages in both types of motor movement but more in fine-muscle motor activity.
5. This child predominantly engages in fine-muscle motor activity with little or no large-muscle motor activity.

VIII. ACTIVITY VS. PASSIVITY OF SPEECH

1. This child talks very seldom or not at all.
2. This child is typically quite passive in his verbal behavior, rarely talks to classmates, rarely volunteers information or asks questions in a group and will give only very brief answers to questions.
3. This child seldom asks questions or volunteers information or comments in a group and will seldom answer questions and participate in casual conversations with adults or classmates.
4. This child occasionally asks questions or volunteers information or comments in a group and occasionally engages in casual conversations with adults or classmates.
5. This child often asks questions, seems to have no reservations about expressing himself in a group situation, and is engaged in conversation with someone much of the time he is in class.

IX. VERBAL SKILLS

1. This child typically uses short sentences, short phrases, or single words to communicate with others. His vocabulary is limited to names for concrete objects, a few verbs, and perhaps some pronouns such as "I" and "me".
2. This child tends to use short sentences and phrases and is somewhat limited in his vocabulary.
3. This child seldom uses notably long sentences and phrases yet incorporates all parts of speech in his conversation.
4. This child sometimes uses long sentences and phrases when he speaks, incorporates all parts of speech in his conversation, but does not use many abstract concepts.
5. When he speaks, this child consistently uses long sentences and phrases and possesses an unusually large vocabulary which includes rather abstract concepts.

X. QUALITY OF SPEECH

1. This child's pronunciation and grammar is so poor that he has difficulty making himself understood even after repetitions.
2. This child's pronunciation and grammar is poor enough to often require repetitions in order to be understood.
3. This child's pronunciation and grammar contains enough inaccuracies to sometimes require repetitions in order to be understood.
4. This child's pronunciation and grammar contains inaccuracies normally expected for this age but can be understood without his having to repeat.
5. This child's pronunciation and sentence structure is very much like an articulate adult - his verbal communication is consistently clear and fluent.

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IN THE MORE EFFECTIVE SCHOOLS PROGRAM*

Appendix B.5

ASSESSMENT OF LANGUAGE SKILLS OF 3-6 YEAR-OLD CHILDREN

Teacher______________________________ Date______________

Pupil_________________________________ P.S.____ Boro____ Class____

Birthplace________________ Age___yrs.___mos. N PR O (Circle One)

How long in N.Y.C.________ Previous schooling:Type___ no.of yrs.____

Language other than English spoken by pupil___________________

DIRECTIONS: Circle the number on the rating scale which corresponds to the degree to which the child exhibits the behavior described. Consult the Teacher's Guide for further description of the rating scale and explanation of the individual items.

General Facility with the English Language

The following two items are intended only for children whose native language is NOT English. Please give a general, overall rating.

1. Understanding of English	1	2	3	4	5
2. Use of English	1	2	3	4	5

I. Expressive Ability

A. Language Structure

1. Uses non-verbal means such as gestures for making himself understood.	1	2	3	4	5
2. Uses baby talk or made up words.	1	2	3	4	5
3. Uses single words.	1	2	3	4	5
4. Employs short phrases, several words					
5. Uses complete sentences.	1	2	3	4	5

Comments:

---

*Prepared in cooperation with the MES staff committee.

B. Speech Production

1. Speaks audibly. 1 2 3 4 5
2. Pronounces familiar words correctly. 1 2 3 4 5
3. Enunciates correctly. 1 2 3 4 5

Comments:

C. Naming

1. Uses names of very familiar objects. 1 2 3 4 5
2. Uses names of very familiar places. 1 2 3 4 5
3. Refers to familiar children in his class by name. 1 2 3 4 5
4. Uses the name of familiar teachers. 1 2 3 4 5
5. Uses personal pronouns when referring to himself. 1 2 3 4 5

Comments:

D. Linguistic Skills

1. Verbalizes experiences either spontaneously or when asked to do so. 1 2 3 4 5
2. Tries to exchange ideas or information with other children. 1 2 3 4 5
3. Holds sustained conversation with teacher. 1 2 3 4 5
4. Asks questions such as: "What is it?" in response to new things. 1 2 3 4 5
5. Asks: "Why?" 1 2 3 4 5
6. Helps other children in following directions or solving a problem by explaining words for them. 1 2 3 4 5
7. Tries to justify his own reasoning or persuade other children to see his point of view. 1 2 3 4 5
8. Questions other children as to how they think or feel or what they do. 1 2 3 4 5
9. Tells stories, real or imaginary, to other children or teachers. 1 2 3 4 5
10. Asks to do things by himself using gestures or saying: "Let me." 1 2 3 4 5
11. Uses verbal names to draw attention to himself. 1 2 3 4 5

Comments:

II. Receptive Understanding

A. Auditory Discrimination

1.	Without looking, correctly identifies sound effects.	1	2	3	4	5
2.	Repeats a single rhythmic pattern.	1	2	3	4	5
3.	Repeats foreign or nonsense words.	1	2	3	4	5
4.	Supplies words that rhyme.					

Comments:

B. Listening Comprehension

1.	Follows directions.	1	2	3	4	5
2.	Retells a story or experience in the proper sequence.	1	2	3	4	5
3.	Anticipates the ending of a story or what comes next.	1	2	3	4	5
4.	Asks pertinent questions.	1	2	3	4	5
5.	Answers pertinent questions.	1	2	3	4	5
6.	His emotional response indicates that he has understood what he has heard.	1	2	3	4	5
7.	Takes part in dramatization.	1	2	3	4	5

Comments: